

CLAIMS

1. Electrical power supply distribution apparatus comprising:
a conduit containing at least one elongate conductor, the conduit having an
5 opening through which a connector is able to be inserted to connect
electrically with the conductor; and
a conductive member disposed between the opening and the conductor and
resiliently displaceable by a said connector to provide access to the
conductor.
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2. Apparatus as claimed in claim 1 wherein the member forms an earth
connector.
3. Apparatus as claimed in claim 1 or claim 2 wherein the member is resiliently
15 biased towards the opening.
4. Apparatus as claimed in any one of claims 1 to 3 wherein the member
occludes the opening.
- 20 5. Apparatus as claimed in any one of claims 1 to 4 wherein the member seals
the opening.
6. Apparatus as claims in claim 4 or claim 5 further comprising a displaceable
flap for the opening, the member underlying the flap.

7. Apparatus as claimed in any one of the preceding claims wherein the opening is an elongate slot.
- 5 8. Apparatus as claimed in any one of the preceding claims wherein the member has a sheet-like surface and a support portion engaging the conduit.
9. Apparatus as claimed in claim 8 further comprising two opposed support
10 portions.
10. Apparatus as claimed in claim 8 or claim 9 wherein the or each portion is of winged form.
- 15 11. Apparatus as claimed in claim 10 wherein the or each wing comprises a plurality of individual wing portions separately connected to the surface.
12. In combination apparatus as claimed in any one of the preceding claims and a said connector having an electrical contact arranged to engage the
20 conductor.
13. A combination as claimed in claim 12 wherein the apparatus comprises first and second conductors and the connector comprises first and second electrical contacts arranged to engage respective said conductors.

14. A combination as claimed in claim 13 wherein the contacts are disposed at opposed ends of an arm rotatable between a first position in which the contacts are disengaged from the conductors and the second position in which the contacts are engaged with the conductors.

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15. Electrical power supply distribution apparatus according to any one of claims 1 to 11, further comprising a further conduit containing at least one elongate conductor, said further conduit having an opening arranged to receive a data and/or communications connector to connect electrically with
10 the conductor.

16. Electrical power supply distribution apparatus according to claim 15, wherein the two conduits are separated by an EMI shield.

15 17. Electrical power supply distribution apparatus according to claim 16, wherein the EMI shield is formed by at least a part of either or both conduits.

18. A combination as claimed in any one of claims 15 to 17 and a data/communications connector having an electrical contact arranged to
20 engage said conductor.

19. Electrical power supply distribution apparatus comprising:
a conduit containing at least one elongate conductor, the conduit having an opening arranged to receive a connector to connect electrically with the

conductor; and

a cable run separated from the conductor by an EMI shield.

20. Apparatus as claimed in claim 19 wherein the shield is formed by at least a
5 part of the conduit.

21. Apparatus as claimed in claim 19 or claim 20 wherein the shield is formed
from metal.

10 22. Apparatus as claimed in claim 19 or claim 20 wherein the shield is formed
as a metallic or metallised layer.

23. Apparatus as claimed in claim 20 wherein the conductor is insulated from
said part.

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24. Apparatus as claimed in claim 23 further comprising an elongate insulator
disposed between the conductor and said part.

25. Apparatus as claimed in any one of claims 19 to 25 wherein the shield
20 forms an earth connector.

26. Apparatus as claimed in any one of claims 19 to 25 further comprising a
conductive member disposed between the opening and the conductor and
resiliently displaceable to provide access to the conductor.

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27. Apparatus as claimed in claim 26 wherein the conductive member forms part of the shield.

28. Apparatus as claimed in claim 27 wherein the conductive member and
5 conduit together form a conductive loop around the conductor.

29. Apparatus as claimed in any one of claims 19 to 28 wherein the cable run is enclosed.

10 30. Apparatus as claimed in claim 29 wherein the cable run is formed parallel to the conductor as a separate conduit.

31. Apparatus as claimed in any one of claims 19 to 30 wherein the cable run is arranged to receive data and/or communications cables.

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32. Apparatus as claimed in claim 31 further comprising a cover, the cover having at least one opening arranged to receive a data and/or communications connector.

20 33. An electrical connector arranged to receive an electrical plug and having first and second electrical contacts arranged to engage corresponding conductors of an electrical power supply distribution apparatus, wherein the contacts are disposed at opposed ends of an arm rotatable between a first position in which the contacts are arranged to disengage from the

conductors and a second position in which the contacts are arranged to engage with the conductors.

34. A connector as claimed in claim 33 wherein the ends of the arm are
5. resiliently displaceable.

35. A connector as claimed in claim 34 wherein each end is of hooked form.

36. A connector as claimed in claim 33, wherein the contacts are resiliently
10. displaceable.

37. A connector as claimed in claim 33 or 36, wherein a part of the contacts are received inside the rotatable arm.

15. 38. A connector as claimed in claim 37, wherein a part of the contacts protruding out of the rotatable arm is hemispheric shape.

39. A connector as claimed in any one of claims 33 to 38 further comprising means arranged to allow engagement of each contact only with a selected
20. conductor.

40. A connector as claimed in claim 39 wherein the means comprises a formation offset relative to the axis of rotation of the arm.

41. In combination, a connector as claimed in any one of claims 33 to 40 and a
said electrical power supply distribution apparatus comprising a conduit
containing at least one elongate conductor, the conduit having an opening
through which the connector is able to be inserted to connect electrically
5 with the conductor.

42. A combination as claimed in claim 41 further comprising a conductive
member disposed between the opening and the conductor and resiliently
displaceable by a said connector to provide access to the conductor.

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43. In combination a connector as claimed in claim 39 or claim 40 and a said
electrical power distribution apparatus comprising a conduit containing two
elongate conductors, the conduit having an opening through which the arm
of the connector is able to be inserted, and means arranged to allow
15 engagement of each conductor only with a selected contact of the arm.

44. A combination as claimed in claim 43 wherein said means comprises first
and second formations offset relative to said opening.

20 45. A connector as claimed in any one of claims 33 to 40 further comprising
arm protection means arranged to protect the arm in the first position.

46. A connector as claimed in claim 45 wherein the protection means
comprises first and second formations, the arm, in the said first position,
25 lying between the formations.

47. Apparatus for distributing electrical power and/or communication signals,
the apparatus comprising an elongate conduit containing at least one
elongate conductor, the conduit having an elongate opening arranged to
5 receive a connector to connect electrically with the conductor and a
resiliently displaceable flap for the opening wherein the flap is co-extruded
with a part of the conduit.
48. Apparatus as claimed in claim 47 further comprising a second flap for the
10 opening.
49. Apparatus as claimed in claim 47 or claim 48 wherein the or each flap is co-
extruded with a member forming a side of the opening.
- 15 50. Apparatus as claimed in claim 49 wherein the or each member forms a
cover for the conduit.
51. Apparatus as claimed in any one of claims 47 to 50 wherein the flap and
part are co-extruded from the same material but of different hardness.
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52. Apparatus as claimed in any one of claims 47 to 50 wherein the flap and
part are co-extruded from different materials.
53. A terminal connector arranged to engage a conduit containing at least one
25 elongate conductor and having an opening arranged to receive a power

point connector or an electrical plug to connect electrically with the conductor, the terminal connector having means slidably connectable to an end of a said conduit and to said conductor and arranged to connect the conductor to a mains supply or the conductor of another said conduit.

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54. A connector as claimed in claim 53 wherein said means comprises at least one contact arranged slidably to engage with an end of a said conductor.

55. A connector as claimed in claim 54 comprising two said contacts arranged to
10 engage opposed sides of a said conductor.

56. A connector as claimed in claim 54 or claim 55 wherein the contact is arranged to engage a cylindrical conductor.

15 57. A connector as claimed in claim 54 comprising three said contacts arranged to engage two opposed sides of the conductor.

58. A connector as claimed in claim 55 wherein the contacts are arranged to engage a sheet-like conductor.

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59. A connector as claimed in claim 55 wherein the contacts are arranged to
59. engage a T-shaped conductor.

60. A connector as claimed in any one of claims 53 to 59 wherein said means comprises at least one projection arranged to be slidably receivable in a corresponding socket of a said conduit.

5 61. A connector as claimed in claim 60 as dependent directly or indirectly upon claim 58 wherein the projection partially surrounds the contact.

62. A connector as claimed in claim 53 wherein said means forms a channel arranged to engage slidably with an end of a said connector.

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63. In combination, two connectors as claimed in any one of claims 53 to 62 connected together so that said means project outwardly so as to be connectable to adjacent said conduits.

15 64. A combination as claimed in claim 63 wherein the connectors are connected via a base member.

65. A combination as claimed in claim 63 or claim 64 wherein the connectors are electrically connected together.

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66. Electrical power distribution apparatus comprising: a metal conduit containing at least one elongate conductor, the conduit having an opening arranged to receive a connector to connect electrically with the conductor; and the conductor being connected to the conduit via an insulator, whereby
25 the conduit forms an EMI shield for the conductor.

67. Apparatus as claimed in claim 66 further comprising a conductive member disposed between the opening and the conductor and resiliently displaceable to provide access to the conductor.

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68. Apparatus as claimed in claim 67 wherein the member forms part of the shield.

69. Apparatus as claimed in claim 68 wherein the member and conduit together
10 from a conductive loop around the conductor.

70. Apparatus as claimed in any one of claims 66 to 69 further comprising a cable run separated from the conductor by the shield.

15 71. Apparatus as claimed in any one of claims 66 to 69 further comprising a further conduit separated from the conductor by the shield.

72. Apparatus as claimed in claim 71 wherein the said conduit contains at least one elongate conductor and has an opening arranged to receive a data
20 and/or communications connector to connect electrically with the conductor.

73. An electrical plug arranged to receive one or more electrical wires for coupling to an electrical device, the plug having first and second electrical contacts arranged to engage corresponding conductors of an electrical
25 power supply distribution apparatus, wherein the contacts are disposed at

opposed ends of an arm rotatable between a first position in which the contacts are arranged to disengage from the conductors and a second position in which the contacts are arranged to engage with the conductors.

5 74. An electrical plug as claimed in claim 73 wherein the ends of the arm are resiliently displaceable.

75. An electrical plug as claimed in claim 74 wherein each end is of hooked form.

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76. An electrical plug as claimed in claim 73 wherein the contacts are resiliently displaceable.

77. An electrical plug as claimed in any one of claims 73 to 76 further
15 comprising means arranged to allow engagement of each contact only with a selected conductor.

78. An electrical plug as claimed in claim 77 wherein the means comprises a formation offset relative to the axis of rotation of the arm.

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79. An electrical plug as claimed in any one of claims 73 to 78 wherein each contact is connected electrically to a said electrical wire.

80. Communications signal distribution apparatus comprising a conduit
25 containing at least one elongate conductor, the conduit having an opening

arranged to receive a data and/or communications connector to connect electrically with the conductor.

81. In combination, apparatus as claimed in claim 80 and a said connector
5 having an electrical contact arranged to engage the conductor.

82. A combination as claimed in claim 81 wherein the apparatus comprises four conductors and the connector comprises four electrical contacts arranged to engage respective said conductors.

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83. Apparatus for distributing electrical power and/or communication signals, the apparatus comprising two conduits separated by an EMI shield, each conduit containing at least one elongate conductor and which includes an opening arranged to receive a connector to connect electrically with the
15 conductor.

84. Apparatus as claimed in claim 83 wherein one conduit is used to distribute communication signals.

20 85. Apparatus as claimed in claim 83 wherein one conduit is used to distribute electrical power.

86. Apparatus as claimed in claim 85, further comprising a conductive member in said conduit, the conductive member being disposed between the opening

and the conductor of said conduit and being resiliently displaceable by a said connector to provide access to the conductor of said conduit.

87. An electrical socket comprising

5 a housing containing at least one conductor, the housing having an opening through which a connector is able to be inserted to connect electrically with the conductor, and
a conductive member disposed between the opening and the conductor and resiliently displaceable by a said connector to provide access to the
10 conductor.

88. An electrical socket as claimed in claim 87 wherein the conductive member forms an earth connector.

15 89. An electrical socket as claimed in claim 87 or 88 wherein the conductive member is resiliently biased towards the opening.

90. An electrical socket as claimed in any one of claims 87 to 89 wherein the opening is an elongate slot.

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91. In combination, a socket as claimed in any one of claims 87 to 90 and a said connector having an electrical contact arranged to engage the conductor.

92. A combination as claimed in claim 91 wherein the socket comprises first and second conductors and the connector comprises first and second electrical contacts arranged to engage respective said conductors.
- 5 93. A combination as claimed in claim 92 wherein the contacts are disposed at opposed ends of an arm rotatable between a first position in which the contacts are disengaged from the conductors and a second position in which the contacts are engaged with the conductors.
- 10 94. A data and/or communications terminal connector arranged to engage a conduit containing at least one elongate conductor and having an opening arranged to receive a data and/or communications connector to connect electrically with the conductor, the terminal connector having means slidably connectable to an end of a said conduit and to said conductor and
15 arranged to connect the conductor to a data and/or communications cable arranged to provide communication signals.
95. A terminal connector as claimed in claim 94 wherein said means comprises a U-shaped terminal arranged to engage slidably with an end of
20 a said conductor.
96. An extension cable including apparatus as claimed in any one of claims 1 to 11, 15 to 17, 19 to 30, 47 to 52, 66 to 72, 80 and 83 to 86, a combination as claimed in any one of claims 12 to 14, 18, 41 to 44, 63 to 65, 81, 82 and 91
25 to 93, a connector as claimed in any one of claims 33 to 40, 45, 46, 53 to 62,

94 and 95, an electrical plug as claimed in any one of claims 73 to 79, and/or an electrical socket as claimed in any one of claims 87 to 90.